

# XT230A1PAL2

Capacitive proximity sensors XT, cylindrical  
M30, plastic, Sn 15 mm, cable 2 m



## Main

|                                    |                                                |
|------------------------------------|------------------------------------------------|
| Range of product                   | Telemecanique Capacitive proximity sensors XT  |
| Sensor type                        | Capacitive proximity sensor                    |
| Product specific application       | Detection of insulated or conductive materials |
| Sensor name                        | XT2                                            |
| Sensor design                      | Cylindrical M30                                |
| Size                               | 74.5 mm                                        |
| Body type                          | Fixed                                          |
| Detector flush mounting acceptance | Non flush mountable                            |
| Material                           | Plastic                                        |
| Enclosure material                 | Plastic                                        |
| Type of output signal              | Discrete                                       |
| Wiring technique                   | 3-wire                                         |
| [Sn] nominal sensing distance      | 15 mm                                          |
| Discrete output function           | 1 NO                                           |
| Output circuit type                | DC                                             |
| Discrete output type               | PNP                                            |
| Electrical connection              | Cable                                          |
| Cable length                       | 2 m                                            |
| [Us] rated supply voltage          | 12...24 V DC with reverse polarity protection  |
| Maximum delay response             | 10 ms                                          |
| IP degree of protection            | IP67 double insulation conforming to IEC 60529 |

## Complementary

|                                 |                                         |
|---------------------------------|-----------------------------------------|
| ISO thread                      | M30 x 1.5                               |
| Detection face                  | Frontal                                 |
| [Sa] assured operating distance | 0...11 mm                               |
| Adjustment zone                 | 0...17 mm                               |
| Differential travel             | < 1...20 % Sr                           |
| Repeat accuracy                 | < 5 % Sr                                |
| Wire insulation material        | PVC                                     |
| Status LED                      | Output state indication: 1 LED (yellow) |
| Supply voltage limits           | 10...30 V DC                            |
| Maximum residual current        | 100 mA open state                       |
| Protection type                 | Short-circuit protection                |
| Switching frequency             | <= 150 Hz                               |
| Maximum voltage drop            | <2.5 V (closed)                         |
| Current consumption             | < 15 mA                                 |
| Maximum delay first up          | 100 ms                                  |
| Maximum delay recovery          | 10 ms                                   |
| Maximum switching current       | 200 mA                                  |
| Marking                         | CE                                      |
| Setting-up                      | Sensitivity by potentiometer            |
| Threaded length                 | 48.5 mm                                 |

|            |         |
|------------|---------|
| Length     | 74.5 mm |
| Net weight | 0.27 kg |

## Environment

|                                       |                                                                                  |
|---------------------------------------|----------------------------------------------------------------------------------|
| Standards                             | IEC 60947-5-2                                                                    |
| Product certifications                | cULus                                                                            |
| Ambient air temperature for operation | -10...60 °C                                                                      |
| Vibration resistance                  | 10 gn amplitude = 1 mm (f = 10...55 Hz) conforming to IEC 60068-2-6              |
| Shock resistance                      | 30 gn for 11 ms conforming to IEC 60068-2-27                                     |
| Resistance to electrostatic discharge | 4 kV contact conforming to IEC 61000-4-2<br>8 kV air conforming to IEC 61000-4-2 |
| Resistance to electromagnetic fields  | 3 V/m conforming to IEC 61000-4-3                                                |
| Resistance to fast transients         | 2 kV conforming to IEC 61000-4-4                                                 |

## Packing Units

|                              |        |
|------------------------------|--------|
| Unit Type of Package 1       | PCE    |
| Number of Units in Package 1 | 1      |
| Package 1 Height             | 2.5 cm |
| Package 1 Width              | 21 cm  |
| Package 1 Length             | 15 cm  |
| Package 1 Weight             | 160 g  |

## Offer Sustainability

|                                            |                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Toxic heavy metal free                     | Yes                                                                                                                                                                                                                                                                                                                                                                               |
| California proposition 65                  | WARNING: This product can expose you to chemicals including: Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| For all Reach Rohs enquiries contact us at | <a href="mailto:sustainability@tesensors.com">sustainability@tesensors.com</a>                                                                                                                                                                                                                                                                                                    |

## Contractual warranty

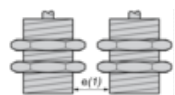
|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|



## Setting-up

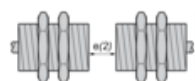
### Minimum Mounting Distances (mm)

Side by side



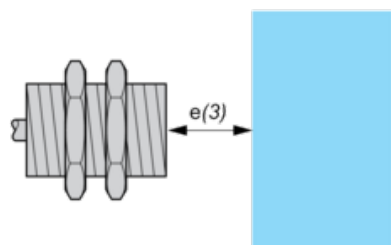
$$e(1) \geq 60$$

Face to face



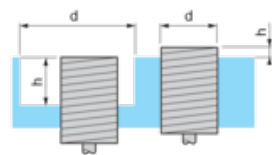
$$e(2) \geq 90$$

Facing a metal object



$$e(3) \geq 45$$

Mounted in support



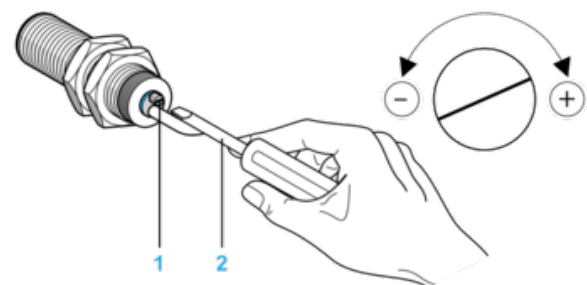
$$d \geq 90$$

$$h \geq 30$$

Fixing nut tightening torque: 8 N.m

## Adjustment

### Sensitivity Adjustment



(1) Adjustment potentiometer

(2) Screwdriver (included with sensor)

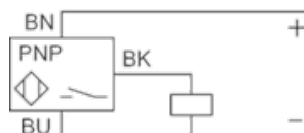
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## Wiring Diagram

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### Pre-cabled

3-wire DC, PNP NO Output



(BU) Blue

(BN) Brown

(BK) Black